



# River Murray Water Resources Report

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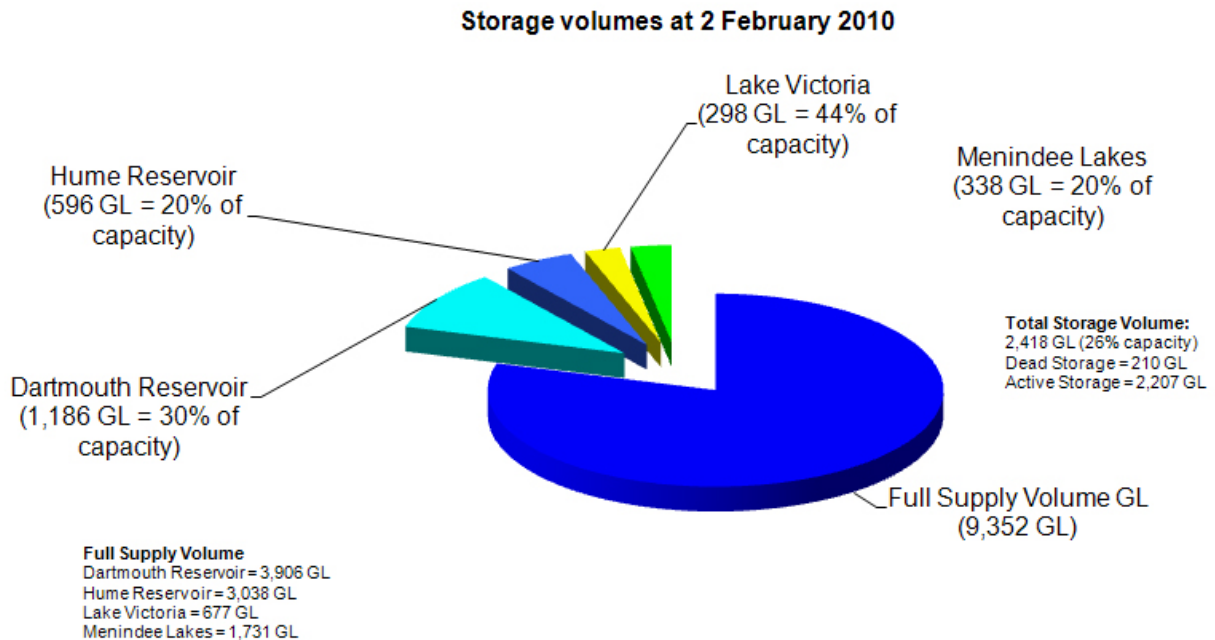
## Observations at a glance

- River Murray system inflows have continued at low levels, with only 110 GL received during January 2010. This was well below the long-term January average of 235 GL.
- Irrigators are currently able to access 48% of their entitlement.
- Applications to carry-over water not used in 2009-10 for use in 2010-11 are now open, and must be lodged on or before 19 March 2010.
- The volume of water in upstream storages is currently 2,418 GL (26% capacity), compared to 1,770 GL (19% capacity) at the same time last year.

## Murray-Darling Basin storages

The volume of water in storage in Hume and Dartmouth Reservoirs, Lake Victoria and Menindee Lakes is currently 2,418 GL (26% capacity), compared to 1,770 GL (19% capacity) at the same time last year. Current storage levels are shown in **Figure 1**.

Figure 1: Murray-Darling Basin storages



Of the above volume, the amount of water currently held within the main Murray-Darling Basin Authority-operated storages (Hume, Dartmouth and Lake Victoria) is currently 2,080 GL or 27% capacity. The volume of water held in Menindee Lakes has been increasing due to improved flows along the Darling River and is currently 338 GL or 20% capacity.

Releases will continue from Hume and Dartmouth Reservoirs over the coming months to assist in supplying downstream requirements, including irrigation diversions.

## Rainfall and River Murray inflows

### Southern Murray-Darling Basin

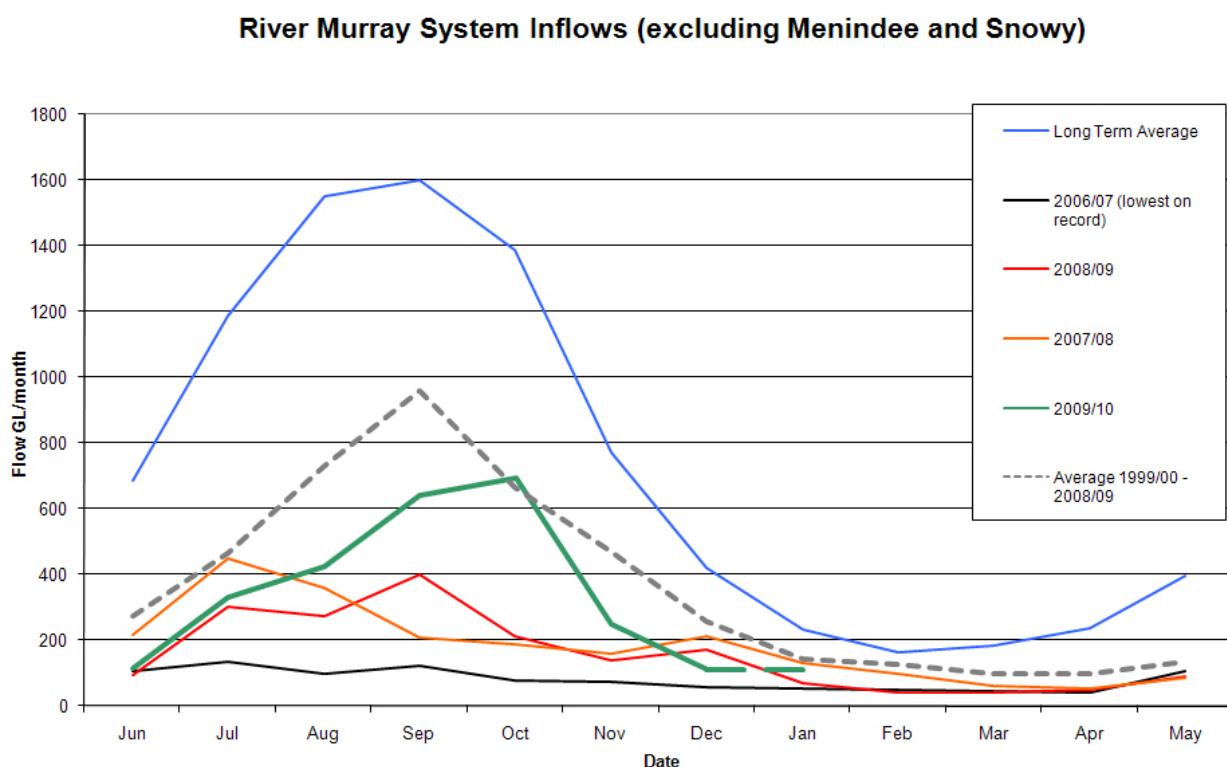
River Murray system inflows have continued at low levels. During January 2010 only 110 GL was received. While this was slightly more than the January 2009 figure of 70 GL, it was well below the long-term January average of 235 GL.

Areas of the Upper Murray catchment received heavy rainfall in the first few days of January 2010, but this did little to improve inflows because the catchment was so dry. No major improvements are expected in the River Murray system during summer and autumn. Losses along the River Murray have remained high. **Table 1** shows River Murray system inflows for the period June to January over various years. **Figure 2** shows monthly inflows.

**Table 1: River Murray system inflows for the period June to January**

Period Jun-Jan	Inflow (GL)
2006-07	725
2007-08	1,930
2008-09	1,660
2009-10	2,670
Long-term average	7,850
Past 10 years	3,965

**Figure 2: Monthly River Murray inflows**



## Northern Murray-Darling Basin

The Christmas/New Year period saw some significant rainfall events in the northern areas of the Murray-Darling Basin creating inflows from a number of catchments including the lower Culgoa, Barwon, Macquarie, Castlereagh and Namoi. Inflows from these catchments have been making their way into the Barwon-Darling system over the past month. Based on the current flows along the Darling River, it is estimated about 1,330 GL will flow past Bourke and about 900 GL is expected to pass Wilcannia. Losses between Bourke to Wilcannia are high.

At the current increased flow rates, water will be pushed along a number of creeks and channels both above and below Menindee Lakes, including the Talyawalka creek system and the Great Darling Anabranh. This water will provide some local environmental benefits to areas that haven't received water since 2000.

Some of the Darling River flows will be directed into Lakes Weatherell and Pamamaroo and the volume of water stored in these lakes will increase up to 610 GL before the volume is reduced to the normal full supply volume of 480 GL. Water from this current event will not be directed into Lakes Menindee or Cawndilla because there would be large losses due to seepage and evaporation. Instead, about 400-450 GL will be released from Menindee Lakes to the Lower Darling River and eventually Lake Victoria.

Transmission losses along the Lower Darling to Lake Victoria are expected to be about 100 GL.

Further rainfall is forecast over northern areas of the Murray-Darling Basin for the coming five days. Additional rainfall is likely to improve Darling River inflows, particularly if rain falls over catchments that remain wet from the previous event (such as the Culgoa area).

## River operations

New South Wales has commenced releasing water from Menindee Lakes and the release has been slowly increased up to 12,000 ML/day. Releases commenced during mid January 2010 and some of this water has now started to reach the Wentworth Weir pool from the Lower Darling. This water will be directed into Lake Victoria over the coming weeks.

The flow to South Australia is currently averaging 8,300 ML/day, which includes some additional trade water. The normal entitlement flow for February is 6,929 ML/day and the flows to South Australia over the last month have been at the highest levels since 2005-06. The increased flows are primarily a result of delivering water for the Lower Lakes and high flow rates are expected to remain over summer and autumn to facilitate delivery of the environmental water.

These higher flow rates mean the chance of algal bloom development will be reduced. The flows over Lock 1 are expected to be about 4,000 ML/day during February.

Over the next few months there will be a slight change in the colour of water flowing across the border as the Darling River water reaches South Australia.

Some weir pools are slightly below their normal full supply level and minor variations may occur during periods of hot weather and to assist with the delivery of the target flows over Lock 1.

Information about river operations upstream of the South Australian border is available from the Murray-Darling Basin Authority website [www.mdba.gov.au](http://www.mdba.gov.au)

## Salinity and water levels

Salinity levels upstream of the South Australian border remain low due to good quality water being supplied from the upper Murray catchment. A small rise in salinity may occur as the Darling River water enters the River Murray, however no major salinity spikes are expected to occur. The Darling River water will be directed into Lake Victoria where it will be mixed with good quality fresh water.

Salinity levels between Lock 6 and Murray Bridge remain low. However below Wellington salinity levels in both Lakes Alexandrina and Albert remain high. The average salinity in Lake Alexandrina is currently 5,750 EC and in Lake Albert currently 13,925 EC.

The average water level in Lake Alexandrina is currently about minus 0.91m AHD, and in Lake Albert the average water level is about minus 0.71m AHD.

**Table 2** shows the current water levels and salinity at selected locations.

Table 2: Water and salinity levels

	Actual Water Levels at 29/01/10		Full Supply Level Level	Variation from Pool Level	Current EC Level
	U/S m AHD	D/S m AHD	U/S of Weir m AHD	U/S of Weir m AHD	
Lock 6	19.22	16.42	19.25	-0.09	183
Lock 5	16.29	13.43	16.30	-0.01	172
Lock 4	13.13	10.74	13.20	-0.07	200
Lock 3	9.79	6.41	9.80	0.03	215
Lock 2	6.01	3.57	6.10	-0.09	264
Lock 1	3.13	-0.09	3.20	-0.07	335
Lake Alexandrina (average)	-0.91				5,750
Lake Albert (average)	-0.71				13,925
Goolwa	0.2				12,530
Water levels below Lock 1 are affected by wind and will vary throughout the day					
EC Readings below Lock 1 are averages and will vary throughout the day					

## Water allocations in South Australia and interstate

River Murray irrigation allocations in South Australia are currently at 48%. For further information view the Minister's latest River Murray announcement (1 February 2010) at [www.dwlbc.sa.gov.au/media.html](http://www.dwlbc.sa.gov.au/media.html)

The current allocation levels in South Australia, Victoria and New South Wales (together with the volume of these allocations) are outlined in **Table 3**. The volumes for NSW and Victoria include tributary water, in addition to water provided to those states under the water sharing arrangements.

The latest information about allocations in New South Wales is available at <http://www.water.nsw.gov.au/>

The latest information about allocations in Victoria is available at [http://www.g-mwater.com.au/news/media-releases/2009\\_media\\_releases](http://www.g-mwater.com.au/news/media-releases/2009_media_releases)

**Table 3: Current allocation levels in South Australia, Victoria and New South Wales (including the volume of these allocations)**

<b>Allocation type and %</b>	<b>Volume Allocation GL*</b>
SA High Security 48%	273
NSW Murray High Security 97%	179
NSW Murray General Security 13%	217
NSW Murrumbidgee High Security 95%	342
NSW Murrumbidgee General Security 18%	339
Vic Murray High Reliability Water Shares 64%	756
Vic Murray Low Reliability Water Shares 0%	0
Vic Goulburn High Reliability Water Shares 56%	557
Vic Goulburn Low Reliability Water Shares 0%	0
Lower Darling High Security 100%	10
Darling General Security 100%	78

\*Volumes for NSW and Victoria include tributary water, in addition to water provided to those states under the water sharing arrangements.

## **Environmental water for the Lower Lakes**

On 19 January 2010, NSW Premier Kristina Keneally and South Australian Premier, Mike Rann, jointly announced an agreement between the two state Governments that would allow 148 GL of the total releases from Menindee Lakes to flow to the Lower Lakes in South Australia. This 148 GL includes 48 GL of water recovered from the Great Darling Anabranch stock and domestic water pipeline project. In addition to the 148 GL the Commonwealth Government will supply South Australia with a further 20 GL bringing the total for the Lower Lakes to 168 GL.

This 168 GL is in addition to the 170 GL Lower Lakes Environmental Reserve currently being delivered to the Lower Lakes during 2009-10 and the 350 GL that will flow into Lake Alexandrina during 2009-10 as a minimum flow. This means a total of 688 GL has been committed for the Lower Lakes to assist in the management of acid sulfate soil trigger levels in Lakes Alexandrina and Albert.

Delivery of the 168 GL to South Australia will commence over the coming months, but it will not significantly increase water levels below Lock 1. About 1,500 GL is required to recover water levels in the lakes to the pre-drought level.

For further information read the full announcements at [www.ministers.sa.gov.au/images/stories/mediareleasesJAN10/twentygigalitres.pdf](http://www.ministers.sa.gov.au/images/stories/mediareleasesJAN10/twentygigalitres.pdf) and [www.ministers.sa.gov.au/images/stories/mediareleasesJAN10/joint%20release%20floodwaters.pdf](http://www.ministers.sa.gov.au/images/stories/mediareleasesJAN10/joint%20release%20floodwaters.pdf)

## Carry-over applications now open

South Australian irrigators will be able to carry over all of their allocations not used in 2009-10 into the 2010-11 water year. This includes water previously carried forward from 2008-09 that remains unused at 30 June 2010.

Carry-over application forms must be lodged with the DWLBC on or before 19 March 2010. **Late applications will not be accepted.** Irrigators should carefully consider the volume of water that is likely to be unused for 2009-10 because the volume applied for cannot be adjusted after 19 March 2010.

An application form and copy of the carry-over policy can be found on the DWLBC website at [www.dwlbc.sa.gov.au/murray/drought/index.html#Carryoverwater](http://www.dwlbc.sa.gov.au/murray/drought/index.html#Carryoverwater)

## Riverbank Collapse Hotline – 1800 751 970

A 24-hour hotline (1800 751 970) has been established for the community to access general information about River Murray riverbank collapse, and to report new cracking along the riverbank between Lock 1 and Wellington. Calls to this hotline are free.

This hotline replaces the MurrayWatch hotline as the number to report riverbank cracking. Major riverbank collapses should immediately be reported to **000**.

Riverbank stability downstream of Lock 1 has been impacted by long periods of low water levels, and the risk of collapse has the potential to threaten lives and property. During the coming dry summer months, low water levels will continue to be an issue and the risk of serious riverbank collapse will escalate.

Further information, including the signs of potential collapse, is also available online at [http://www.dwlbc.sa.gov.au/murray/drought/riverbank\\_collapse.html](http://www.dwlbc.sa.gov.au/murray/drought/riverbank_collapse.html)

## Weather outlook

The Bureau of Meteorology recently released its national rainfall and temperature outlook for the Murray-Darling Basin for the period February-April 2010. This outlook shows there 45-55% chance of exceeding median rainfall, and 35-65% chance of exceeding median maximum daytime temperatures.

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